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EXAMINER

EWART, JAMES D

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/027,650

Applicant(s)

LEYH ET AL.

Examiner

James D Ewart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,10-17 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,10-17,20-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Response to Arguments*

1. The applicant's arguments regarding prior art rejections under 35 U.S.C. 102(e) and 35 U.S.C. 103(a), filed May 22, 2003, have been fully considered by the Examiner and Examiner agrees that there is not a first and second antenna wherein the first and second transmitter is connectable to the same one of either of the first or second antennas. Byrne teaches two transceivers that can share an antenna, but in that embodiment it appears that there are not two antennas. Examiner has found a new reference, which will replace the Byrne reference and therefore applicant is provided with a second non-final. Examiner regards many of applicant's arguments as simply stating that the examiner's reference does not meet the limitations of the claim. Examiner rejected claims with multiple references according to the limitations of applicants claims and examiners understanding of limitations, please elaborate or be more specific in the next response.
2. Regarding claim 4 and replacing one of the transceivers with a different mode transceiver is an obvious modification and if each transceiver mode is popular there is plenty of reason for combining.
3. Regarding claim 5, Kitchener et al teaches the usage of an internal antenna with an external antenna an external antenna so that mobile device is not cumbersome and unsightly (Column 1, Lines 59-65).

4. Regarding claim 7, Beasley et al teaches a processor coupled to the first and second transceivers (Figure 2; 210, 220, 230), a display and input/ outputs coupled to the processor (Figure 2; 201 and 205).

5. Regarding claim 10, examiner provides references indicating the limitations of claim 10 as a combination and must be considered as a combination and not any one of the references containing all the limitations of the claim. See cited references to rejection: Beasley et al. teaches using a CDMA receiver (Column 2, Lines 8-17). Although Byrne does not teach the same transceivers as applicant, the claim is an obvious modification of Byrne who teaches simultaneous use of transceivers.

6. Referring to claim 11, Byrne teaches two transceivers, one of the transceivers is used for a phone call. During handoff, the one transceiver continues to handle the call, while both transceivers negotiate handoff. Thus, one is in a continuous reception mode and the other is in a noncontinuous reception mode (Column 4, Lines 9-10, Column 8, Lines 20-64 and Column 9, Lines 61-67). Also during handoff, the first transmitter could be receiving while the second is transmitting and visa versa.

### *Specification*

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Multi-mode means many different things. The 18<sup>th</sup> edition of Newton's telecom dictionary defines multi-mode in terms of fiber

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optics. A better title might be something like "Cellular telephone with simultaneous CDMA and TDMA communications".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaisanen et al (U.S. Patent No. 6,560,443).

Referring to claim 1, Vaisanen et al teaches a wireless communications device, comprising: a first transceiver having a first receiver and a first transmitter (Column 3, Lines 55-60); a first antenna coupled to the first receiver (Figure 1); a second transceiver having a second receiver and a second transmitter (Column 3, Line 61 – Column 4, Line 4); a second antenna coupled to the second receiver (Figure 1), the first and second transmitters connectable to the same one of either of the first and second antennas (Figure 1).

Referring to claim 3, Vaisanen et al further teaches the first and second transmitters disconnectable from the same one of the first and second antennas (Figure 1).

Referring to claim 6, a switch coupling the first and second transmitters and the second receiver to the same one of the first and the second antennas (Figure 1).

9. Claims 20, 24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Byrne (U.S. Patent No. 5,737,703).

Referring to claim 20, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Column 4, Lines 9-10) comprising: transmitting a first signal with a first transmitter of the first transceiver operating in a continuous transmission mode (Column 7, Lines 6—67 and Column 8, Lines 20-64), the first transmitter coupled to a first antenna (Figure 2); receiving a second signal with a second receiver of the second transceiver at the same time the first transmitter is transmitting the first signal (Column 4, Lines 9-10), the second receiver coupled to a second antenna different than the first antenna (Figure 2). Again, Byrne teaches two transceivers, one of the transceivers is used for a phone call. During handoff, the one transceiver continues to handle the call, while both transceivers negotiate handoff. Thus, one is in a continuous reception mode and the other is in a noncontinuous reception mode (Column 4, Lines 9-10, Column 8, Lines 20-64 and Column 9, Lines 61-67).

Referring to claim 24, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Figure 2), the method comprising: transmitting with a first transmitter of the first transceiver; transmitting with a second transmitter of the second transceiver at the same time that the first transmitter is transmitting (Column 4, Lines 9-10); receiving with one of a first receiver of the first transceiver and a second receiver of the second transceiver at the same time the first and second transmitters are transmitting (Column 4, Lines 9-10 and Figure 2).

Referring to claim 26, Byrne teaches a method in a wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34 and Figure 2), the method comprising: receiving with a first receiver of the first transceiver; receiving with a second receiver of the second transceiver at the same time that the first receiver is receiving (Column 4, Lines 9-10); transmitting with one of a first transmitter of the first transceiver and a second transmitter of the second transceiver at the same time the first and second receivers are receiving (Column 3, Lines 49-67).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over Vaisanen et al in view of Byrne and further in view of Beasley et al. (U.S. Patent No. 6,246,675).

Referring to claim 4, Vaisanen et al teaches the limitations of claim 4, but does not teach the second receiver is a TDMA receiver, the second transmitter is a TDMA transmitter. Byrne teaches the second receiver is a TDMA receiver, the second transmitter is a TDMA transmitter (Figure 4; GSM). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Vaisanen et al with the teaching of Byrne of using a TDMA transceiver to provide a radio telephone operable for more than one

radio telephone system (Column 3, Lines 30-31). Vaisanen et al and Byrne teach the limitations of claim 4, but do not teach the first receiver is a CDMA receiver and the first transmitter is a CDMA transmitter. Beasley et al. teaches wherein the first receiver is a CDMA receiver and the first transmitter is a CDMA transmitter (Column 1, Lines 9-20). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Vaisanen et al and Byrne with the art of Beasley et al. of using a CDMA receiver and transmitter to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10).

11. Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Vaisanen et al and further in view of Kitchener et al. (U.S. Patent No. 5,995,065).

Referring to claim 5, Vaisanen et al teaches the limitations of claim 5, but does not specifically teach that the first antenna is an internal antenna, the second antenna is an external antenna. Kitchener et al. teaches the first antenna is an internal antenna, the second antenna is an external antenna (Column 1, Lines 61-62). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Kitchener et al. wherein the first antenna is an internal antenna, the second antenna is an external antenna so that the mobile device is not cumbersome and unsightly (Column 1, Lines 59-65).

12. Claim 7 is rejected under 35 USC 103(a) as being unpatentable over Vaisanen et al and further in view of Byrne.



Referring to claim 7, Vaisanen et al teaches the limitations of claim 7, but does not teach a processor coupled to the first and second transceivers, a display and input/outputs coupled to the processor (Figure 2; 205, 210). Byrne teaches a processor coupled to the first and second transceivers (Figure 2; 210, 220,230), a display and input/ outputs coupled to the processor (Figure 2; 205, 210). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Vaisanen et al with the art of Byrne of using a processor coupled to the first and second transceivers, a display and input/outputs coupled to the processor to use shared components in such a manner that it is not detectable by the user (Column 5, Lines 60-64).

13. Claims 10 – 14 are rejected under 35 USC 103(a) as being unpatentable over Byrne in view of Beasley et al. and further in view of Shaffer et al. (U.S. Patent No. 6,324,409)

Referring to claims 10 - 14, Byrne teaches a method in a multi-mode wireless communications device having a first transceiver and a second transceiver (Column 1, Lines 32-34), comprising: receiving a first signal with a first receiver of the first transceiver (Column 4, Lines 9-10); receiving a second signal with a second receiver of the second transceiver in a non-continuous reception mode at the same time the first receiver is receiving the first signal (Column 3, Lines 57-64; Column 4, Lines 9-10) and the second receiver is a GSM/TDMA receiver (Figure 4, 401), but does not teach the first receiver is a CDMA receiver. Beasley et al. teaches using a CDMA receiver (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Beasley et al. of using a CDMA receiver to exchange telephone signals

between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). The combination of Byrne and Beasley et al teach all the limitations of claims 10 - 14, but do not teach receiving an uncompressed signal. Shaffer et al. teaches receiving an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Beasley et al. with the art of Shaffer et al. of receiving an uncompressed signal to improve signal quality (Column 8, Line 52). Again, Byrne teaches two transceivers, one of the transceivers is used for a phone call. During handoff, the one transceiver continues to handle the call, while both transceivers negotiate handoff. Thus, one is in a continuous reception mode and the other is in a noncontinuous reception mode (Column 4, Lines 9-10, Column 8, Lines 20-64 and Column 9, Lines 61-67).

14. Claim 15 is rejected under 35 USC 103(a) as being unpatentable over Byrne, Beasley et al. and Shaffer et al. and further in view of Vaisanen et al.

Referring to claim 15, Byrne further teaches the first receiver coupled to a first antenna (Figure 2), the second receiver coupled to a second antenna different than the first antenna (Figure 2), the first transceiver includes a first transmitter, the second transceiver includes a second transmitter (Figure 2), but does not teach connecting the first transmitter and the second transmitter to the same one of the first and second antennas. Vaisanen et al. teaches connecting the first transmitter and the second transmitter to the same one of the first and second antennas (Figure 1). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne, Beasley et al. and Shaffer et al.

with the teaching of Vaisanen et al. of connecting the first transmitter and the second transmitter to the same one of the first and second antennas for sharing diversity antennae efficiently and as economically as possible (Column 3, Lines 45-47).

15. Claim 16 is rejected under 35 USC 103(a) as being unpatentable over Byrne and further in view of Vaisanen et al.

Referring to claim 16, a method in a wireless communications device having a first transceiver, the method comprising: receiving a first signal with a first receiver of the first transceiver (Figure 1), the first receiver coupled to a first antenna (Figure 1); transmitting a second signal with a first transmitter of the first transceiver at the same time the first receiver is receiving the first signal (Column 4, Lines 9-10), but does not teach the first transmitter coupled to a second antenna different than the first antenna. Vaisanen et al teaches the first transmitter coupled to a second antenna different than the first antenna (Figure 1). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the teaching of Vaisanen et al in which the first transmitter is coupled to a second antenna different than the first antenna for sharing diversity antennae efficiently and as economically as possible (Column 3, Lines 45-47).

16. Claim 17 is rejected under 35 USC 103(a) as being unpatentable over Byrne and Vaisanen et al. in view of Beasley et al. and further in view of Shaffer et al.

Referring to claim 17, Byrne teaches receiving the first signal with the first receiver (Column 4, Lines 9-10), but does not teach receiving a CDMA downlink signal. Beasley et al. teaches receiving a CDMA downlink signal (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Vaisanen et al. with the art of Beasley et al. of receiving a CDMA downlink signal to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). Byrne, Vaisanen et al. and Beasley et al. teach the limitations of claims 17, but do not teach receiving an uncompressed signal. Shaffer et al. teaches receiving an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne, Vaisanen et al. and Beasley et al. with the art of Shaffer et al. of receiving an uncompressed signal to improve signal quality (Column 8, Line 52).

17. Claim 21 is rejected under 35 USC 103(a) as being unpatentable over Byrne and further in view of Beasley et al.

Referring to claim 21, Byrne further teaches the second receiver is a TDMA receiver (Column 6, Lines 44-47), transmitting an uplink signal with the first transmitter; receiving the second signal with the TDMA receiver at the same time the first transmitter is transmitting the uplink signal (Column 4, Lines 9-10), but does not teach that the first transmitter is a CDMA transmitter. Beasley et al. teaches the first transmitter is a CDMA transmitter (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Beasley et al. wherein the first

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transmitter is a CDMA transmitter to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). Again, the Byrne reference teaches during handoff, the first transmitter could be receiving while the second is transmitting and visa versa (Column 4, Lines 9-10).

18. Claim 22 is rejected under 35 USC 103(a) as being unpatentable over Byrne and further in view of Shaffer.

Referring to claim 22, Byrne further teaches transmitting an uplink signal with a first transmitter operating in a continuous transmit mode; receiving the second signal with the second receiver at the same time the first transmitter is transmitting the uplink first signal (Column 4, Lines 9-10), but does not teach transmitting an uncompressed signal. Shaffer et al. teaches transmitting an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Shaffer et al. of transmitting an uncompressed signal to improve signal quality (Column 8, Line 52).

Referring to claims 25 and 27, Byrne teaches the limitations of claims 25 and 27, but does not teach receiving an uncompressed signal. Shaffer et al. teaches receiving an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Shaffer et al. of receiving an uncompressed signal to improve signal quality (Column 8, Line 52).

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19. Claim 23 is rejected under 35 USC 103(a) as being unpatentable over Byrne in view of Beasley et al. and further in view of Shaffer et al.

Referring to claim 23, Byrne teaches the second receiver is a TDMA receiver (Column 6, Lines 44-47), transmitting uplink signal with the first transmitter; receiving the second signal with the TDMA receiver at the same time the first transmitter is transmitting the uplink signal (Column 4, Lines 9-10), but does not teach the first transmitter is a CDMA transmitter. Beasley et al. teaches the first transmitter is a CDMA transmitter (Column 2, Lines 8-17). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne with the art of Beasley et al. of the first transmitter is a CDMA transmitter to exchange telephone signals between a base station and an operating mobile cordless telephone handset (Column 2, Lines 7-10). Byrne and Beasley et al teach the limitations of claims 23, but do not teach transmitting an uncompressed signal. Shaffer et al. teaches transmitting an uncompressed signal (Column 8, Lines 52-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Byrne and Beasley et al. with the art of Shaffer et al. of transmitting an uncompressed signal to improve signal quality (Column 8, Line 52).

### *Conclusion*

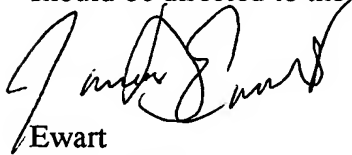
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D Ewart whose telephone number is (703) 305-4826. The examiner can normally be reached on M-F 7am - 4pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James D Ewart can be reached on

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(703)308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-9508 for regular communications and (703)305-9508 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.



Ewart

July 1, 2003



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